

(12) **United States Patent**  
**Tanabe et al.**

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(54) **IMPRINT APPARATUS AND ARTICLE MANUFACTURING METHOD**

(58) **Field of Classification Search**  
CPC ..... B29C 59/02; B29C 59/16; B29C 59/026; G03F 7/0002

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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(30) **Foreign Application Priority Data**

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(57) **ABSTRACT**

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(52) **U.S. Cl.**  
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An imprint apparatus of the present invention that molds and cures an imprint material on a substrate using a mold to form a pattern on the substrate. The imprint apparatus includes a supply unit configured to supply a gas into a gap between the imprint material on the substrate and the mold. The supply unit is configured to supply a mixed gas in which a permeable gas, which permeates at least one of the mold, the imprint material and the substrate, and a condensable gas, which is liquefied under a pressure generated by the molding, is mixed with each other.

**8 Claims, 1 Drawing Sheet**

